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Cont residues, and wherein said lipophilic modification comprises addition of one or more lipophilic moieties to at least one of an N-terminal amino acid residue or an internal amino acid residue but not a C-terminal amino acid residue.

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2. **(Twice Amended)** A method for promoting survival of substantia nigra neuronal cells comprising contacting the cells with an effective amount of a lipophilic modified *hedgehog* polypeptide sufficient to promote the survival of substantia nigra neuronal cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of one or more lipophilic moieties to at least one of an N-terminal amino acid residue or an internal amino acid residue but not a C-terminal amino acid residue.

3. **(Twice Amended)** A method for promoting survival of dopaminergic cells comprising contacting the cells with an effective amount of a lipophilic modified *hedgehog* polypeptide sufficient to promote the survival of dopaminergic cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of one or more lipophilic moieties to at least one of an N-terminal amino acid residue or an internal amino acid residue but not a C-terminal amino acid residue.

4. **(Twice Amended)** A method for promoting survival of GABAergic cells comprising contacting the cells with an effective amount of a lipophilic modified *hedgehog* polypeptide sufficient to promote the survival of GABAergic cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of one or more lipophilic moieties to at least one of an N-

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terminal amino acid residue or an internal amino acid residue but not a C-terminal amino acid residue.

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11. **(Reiterated)** The method of any of claims 1-4, wherein the *hedgehog* polypeptide is modified with one or more fatty acid moieties.

◇◇ Please add the following new claims:

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22. **(New)** A method for promoting survival and/or functional performance of neuronal cells susceptible to excitotoxicity comprising contacting the cells with an amount of a lipophilic modified *hedgehog* polypeptide effective to reduce excitotoxin-mediated degradation of the cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of two or more lipophilic moieties to an N-terminal amino acid residue.

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23. **(New)** A method for promoting survival of dopaminergic cells comprising contacting the cells with an effective amount of a lipophilic modified *hedgehog* polypeptide sufficient to promote the survival of dopaminergic cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of two or more lipophilic moieties to an N-terminal amino acid residue.

24. **(New)** A method for promoting survival of GABAergic cells comprising contacting the cells with an effective amount of a lipophilic modified *hedgehog* polypeptide sufficient to promote the survival of GABAergic cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at

least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of two or more lipophilic moieties to an N-terminal amino acid residue.

25. (New) A method for promoting survival and/or functional performance of neuronal cells susceptible to excitotoxicity comprising contacting the cells with an amount of a lipophilic modified *hedgehog* polypeptide effective to reduce excitotoxin-mediated degradation of the cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of one or more lipophilic moieties to at least one internal amino acid residue.

26. (New) A method for promoting survival of dopaminergic cells comprising contacting the cells with an effective amount of a lipophilic modified *hedgehog* polypeptide sufficient to promote the survival of dopaminergic cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of one or more lipophilic moieties to at least one internal amino acid residue.

27. (New) A method for promoting survival of GABAergic cells comprising contacting the cells with an effective amount of a lipophilic modified *hedgehog* polypeptide sufficient to promote the survival of GABAergic cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of one or more lipophilic moieties to at least one internal amino acid residue.

*The amended claims are re-stated below to reflect changes from the last filing.*

1. **(Amended)** A method for promoting survival and/or functional performance of neuronal cells susceptible to excitotoxicity comprising contacting the cells with an amount of a lipophilic modified *hedgehog* polypeptide effective to reduce excitotoxin-mediated degradation of the cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of one or more lipophilic moieties to at least one of an N-terminal amino acid residue or an internal amino acid residue but not a C-terminal amino acid residue.

2. **(Twice Amended)** A method for promoting survival of substantia nigra neuronal cells comprising contacting the cells with an effective amount of a lipophilic modified *hedgehog* polypeptide sufficient to promote the survival of substantia nigra neuronal cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of one or more lipophilic moieties to at least one of an N-terminal amino acid residue or an internal amino acid residue but not a C-terminal amino acid residue.

3. **(Twice Amended)** A method for promoting survival of dopaminergic cells comprising contacting the cells with an effective amount of a lipophilic modified *hedgehog* polypeptide sufficient to promote the survival of dopaminergic cells, wherein said *hedgehog* polypeptide comprises an amino acid sequence at least 80% identical to an amino acid sequence designated in SEQ ID NO: 10, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, or an N-terminal fragment thereof of at least 50 contiguous amino acid residues, and wherein said lipophilic modification comprises addition of one or more lipophilic moieties to at least one of an N-terminal amino acid residue or an internal amino acid residue but not a C-terminal amino acid residue.

4. **(Twice Amended)** A method for promoting survival of GABAergic cells comprising contacting the cells with an effective amount of a lipophilic modified *hedgehog* polypeptide